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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/674,070	09/30/2003	Arno Bleeker	1857.2090000	1211
26111	7590	07/27/2004	EXAMINER	
STERNE, KESSLER, GOLDSTEIN & FOX PLLC 1100 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005			NGUYEN, HUNG	
			ART UNIT	PAPER NUMBER
			2851	

DATE MAILED: 07/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/674,070	BLEEKER ET AL.
	<b>Examiner</b>	<b>Art Unit</b>
	Hung Henry V Nguyen	2851

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 30 September 2003.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-15 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 30 September 2003 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |                                                                                                                         |                                                                             |
|-------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                    | Paper No(s)/Mail Date. _____.                                               |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____. | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|                                                                                                                         | 6) <input type="checkbox"/> Other: _____.                                   |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-15 are rejected under 35 U.S.C. 102(e) as being anticipated by Sandstrom (US 2004/0053143).

With respect to claim 9, Sandstrom (figure 1) discloses an apparatus for projecting an image formed on a spatial light modulator (SLM) onto a substrate and comprising substantially all basic features of the instant claim such as: means for defining two or more exposure areas on the photosensitive surface (112) (see claim 10), the exposure areas overlapping along respective edge portions of the exposure areas to form an overlap zone therebetween (see figures 1 and 11); means (107) for exposing the two or more exposure areas to print an image therein, the exposing extending through the overlap zone and means (104) for attenuating the exposing within the overlap zone.

As to claim 10, Sandstrom teaches the means for exposing is configured to apply a laser dose (see section [0027]).

As to claim 11, Sandstrom discloses the SLM includes a plurality of separate patterning sub-elements each sub-element being configured to generate a patterned sub-beam and each area corresponding to one illumination source pulse (see figure 10).

As to claims 12-14, Sandstrom teaches spatial light modulator (104) which is configured to perform active attenuation and passive attenuation and including dynamically adjusting pixels to compensate for deficiencies within the image (101-102; please see section [0027]).

With respect to claims 1-14 and 15, the claimed method and corresponding computer readable medium are seen to be inherent teachings in existence of the above apparatus.

3. Claims 1-15 are rejected under 35 U.S.C 102(b) as being anticipated by Jain (U.S.Pat. 6,312,134).

With respect to claim 9, Jain (figure 1) discloses an apparatus for projecting a digital image formed on a spatial light modulator (SLM) onto a substrate and comprising substantially all basic features of the instant claim such as: means for defining two or more exposure areas (figures 6-7) on the photosensitive surface (5), the exposure areas overlapping along respective edge portions of the exposure areas to form an overlap zone therebetween; means (1) for exposing the two or more exposure areas to print an image therein, the exposing extending through the overlap zone and means (3) for attenuating the exposing within the overlap zone.

As to claim 10, Jain further teaches the means for exposing is configured to apply a laser dose (see col.7, lines 46)

As to claim 11, Jain discloses each area corresponding to one illumination source pulse (see figure 6).

As to claims 12-14, Jain teaches spatial light modulator (3) which is configured to perform active attenuation and passive attenuation and including dynamically adjusting pixels to compensate for deficiencies within the image( see col.12, lines 15 through col.13, line 35).

With respect to claims 1-14 and 15, the claimed method and corresponding computer readable medium are seen to be inherent teachings in existence of the above apparatus.

***Prior Art Made of Record***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Johnson (U.S.Pat. 6,498,685); Ceglio et al (U.S.Pat. 5,691,541) and Bleeker et al (U.S.Pat. US 2003/0030781) discloses maskless lithography systems, each of which comprises substantially all elements as recited in the instant claims of the present invention.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung Henry V Nguyen whose telephone number is 571-272-2124. The examiner can normally be reached on Monday-Friday (First Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Russ Adams can be reached on 571-272-2112. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



**Hung Henry V Nguyen  
Primary Examiner  
Art Unit 2851**

hvn  
7/24/2004